

ANALYTICAL REPORT

Job Number: 580-6230-1

Job Description: Puget Sound Truck Line - Seattle

For: Western States Environmental 1320 26th Street NW # 13 Auburn, WA 98001

Attention: Jennifer Ulmer

Tiffany Ryan

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06/27/2007

Project Manager: Heather Curbow

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METHOD SUMMARY

Client: Western States Environmental

Job Number: 580-6230-1

Description	Lab Location	Method Preparation Method
Matrix: Water		
ICP Metals by 200.7 CWA	STL SEA	40CFR136A 200.7 Appx C
Total Metals Digestion for 200.7	STL SEA	EPA 200.7
pH, Electrometric	STL SEA	MCAWW 150.1
HEM and SGT-HEM by Extraction and Gravimetry	STL SEA	1664A 1664A
HEM and SGT-HEM by Extraction and	STL SEA	1664A 1664A
Turbidity, Nephelometric	STL SEA	MCAWW 180.1

LAB REFERENCES:

STL SEA = STL Seattle

METHOD REFERENCES:

1664A - EPA-821-98-002

40CFR136A - "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

MCAWW - "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SAMPLE SUMMARY

Client: Western States Environmental

Job Number: 580-6230-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
580-6230-1	PSTL SEA	Water	06/15/2007 1030	06/15/2007 1335

Analytical Data

Client: Western States Environmental Job Number: 580-6230-1

Client Sample ID: PSTL SEA

Lab Sample ID: 580-6230-1 Date Sampled: 06/15/2007 1030

Client Matrix: Date Received: 06/15/2007 1335

200.7 Appx C ICP Metals by 200.7 CWA

Method: 200.7 Appx C Analysis Batch: 580-19911 Instrument ID: SEA027
Preparation: 200.7 Prep Batch: 580-19876 Lab File ID: N/A

Dilution: 1.0 Initial Weight/Volume: 50 mL

Date Analyzed: 06/25/2007 1855 Final Weight/Volume: 50 mL Date Prepared: 06/25/2007 1253

Analyte Result (mg/L) Qualifier RL

Zinc 0.25 0.040

Analytical Data

Client: Western States Environmental

Job Number: 580-6230-1

General Chemistry

Client Sample ID:

PSTL SEA

Lab Sample ID: Client Matrix:

580-6230-1

Water

Date Sampled:

06/15/2007 1030

Date Received: 06/15/2007 1335

Analyte pН

Result 6.74

Units

SU

Method Dil 150.1

Anly Batch: 580-19601

Date Analyzed

06/15/2007 1535

Analyte	Result	Qual Units	RL	Dil	Method
HEM (Oil & Grease)	6.8	mg/L	4.8	1.0	1664A
	Anly Batch: 580-19858	Date Analyzed 06/25/2007 1015			
	Prep Batch: 580-19857	Date Prepared: 06/25/2007 1014			
Turbidity	170	NTU	0.10	1.0	180.1
	Anly Batch: 580-19689	Date Analyzed 06/15/2007 1452			

Job Number: 580-6230-1 Client: Western States Environmental

Method Blank - Batch: 580-19876

Method: 200.7 Appx C Preparation: 200.7

Lab Sample ID: MB 580-19876/19-A

Client Matrix: Water

Dilution:

1.0

Date Analyzed: 06/25/2007 1748 Date Prepared: 06/25/2007 1253 Analysis Batch: 580-19911 Prep Batch: 580-19876

Units: mg/L

Instrument ID: SEA027 Lab File ID: N/A

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte

Result

Qual

RL

Zinc

ND

0.040

Lab Control Spike/

Lab Control Spike Duplicate Recovery Report - Batch: 580-19876

Method: 200.7 Appx C Preparation: 200.7

LCS Lab Sample ID: LCS 580-19876/20-A

Client Matrix:

Water

Dilution: Date Analyzed: 1.0

06/25/2007 1805 Date Prepared: 06/25/2007 1253 Analysis Batch: 580-19911

Prep Batch: 580-19876

Units: mg/L

Instrument ID: SEA027

Lab File ID: N/A

Initial Weight/Volume: 50 ml.

Final Weight/Volume:

50 mL

LCSD Lab Sample ID: LCSD 580-19876/21-A

Client Matrix:

Water

Dilution:

1.0

Date Analyzed: Date Prepared: 06/25/2007 1253

06/25/2007 1808

Analysis Batch: 580-19911

Prep Batch: 580-19876

Units: mg/L

SEA027 Instrument ID:

Lab File ID: N/A

20

Initial Weight/Volume: 50 mL

Final Weight/Volume: 50 mL

% Rec.

Analyte

LCS

LCSD

Limit

RPD

RPD Limit LCS Qual LCSD Qual

Zinc 101 98 80 - 120

Client: Western States Environmental Job Number: 580-6230-1

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 580-19876

Method: 200.7 Appx C

Preparation: 200.7

MS Lab Sample ID:

580-6212-B-1-C MS

Client Matrix:

Water

Analysis Batch: 580-19911

Instrument ID: SEA027 Lab File ID:

N/A

Dilution:

1.0

Prep Batch: 580-19876

Initial Weight/Volume: 50 mL

Date Analyzed:

06/25/2007 1757

Final Weight/Volume: 50 mL

Date Prepared:

06/25/2007 1253

Analysis Batch: 580-19911

Instrument ID: SEA027

Client Matrix:

MSD Lab Sample ID: 580-6212-B-1-D MSD Water

Lab File ID: N/A

Dilution:

1.0

Prep Batch: 580-19876

Date Analyzed:

06/25/2007 1759

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Date Prepared:

06/25/2007 1253

% Rec.

MSD

96

MS

Limit

RPD

RPD Limit

Zinc

Analyte

94

75 - 125

2

20

MS Qual MSD Qual

Duplicate - Batch: 580-19876

Method: 200.7 Appx C

Preparation: 200.7

Lab Sample ID: 580-6212-B-1-B DU

Client Matrix:

Water

Date Prepared: 06/25/2007 1253

Analysis Batch: 580-19911

Instrument ID: SEA027

Dilution:

1.0 Date Analyzed: 06/25/2007 1755 Prep Batch: 580-19876 Units: mg/L

Lab File ID: N/A

Initial Weight/Volume: 50 mL Final Weight/Volume: 50 mL

Analyte

Sample Result/Qual

Result

RPD

Limit

Qual

Zinc

ND

0.0258

3

20

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Western States Environmental Job Number: 580-6230-1

Duplicate - Batch: 580-19601

Method: 150.1 Preparation: N/A

Lab Sample ID: 580-6226-E-1 DU

Client Matrix: Water

1.0

Dilution:

Date Analyzed: 06/15/2007 1535

Date Prepared: N/A

Analysis Batch: 580-19601

Prep Batch: N/A

Units: SU

Instrument ID: No Equipment Assigned

Lab File ID: N/A

Initial Weight/Volume:

Final Weight/Volume: mL

Analyte Sample Result/Qual RPD Limit Qual Result рΗ 6.15 6.140

Client: Western States Environmental Job Number: 580-6230-1

Method Blank - Batch: 580-19857

Method: 1664A Preparation: 1664A

Lab Sample ID: MB 580-19857/1-A

Client Matrix: Water

Dilution: 1.0

Date Analyzed: 06/25/2007 1015 Date Prepared: 06/25/2007 1014 Analysis Batch: 580-19858 Prep Batch: 580-19857

Units: mg/L

Instrument ID: No Equipment Assigned

Lab File ID: N/A

Initial Weight/Volume: 1000 mL Final Weight/Volume: 1000 mL

Analyte

Result

Qual

RL

HEM (Oil & Grease)

ND

5.0

Lab Control Spike/

Lab Control Spike Duplicate Recovery Report - Batch: 580-19857

Method: 1664A Preparation: 1664A

LCS Lab Sample ID: LCS 580-19857/2-A

Client Matrix: Dilution:

Water

Date Analyzed:

1.0 06/25/2007 1015

Date Prepared:

06/25/2007 1014

Analysis Batch: 580-19858

Prep_Batch: 580-19857

Units: mg/L

Instrument ID: No Equipment Assigned

Lab File ID: N/A

Initial Weight/Volume:

1000 mL

Final Weight/Volume:

1000 mL

LCSD Lab Sample ID: LCSD 580-19857/3-A

Client Matrix:

Water

Dilution: Date Analyzed: 1.0

06/25/2007 1015 Date Prepared: 06/25/2007 1014 Analysis Batch: 580-19858

Prep Batch: 580-19857

Units: mg/L

Instrument ID:

No Equipment Assigned

Lab File ID: N/A

18

Initial Weight/Volume: 1000 mL Final Weight/Volume: 1000 mL

% Rec.

90

Analyte LCS

HEM (Oil & Grease)

LCSD 85

Limit

79 - 114

RPD

5

RPD Limit LCS Qual LCSD Qual

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Western States Environmental Job Number: 580-6230-1

Method Blank - Batch: 580-19689 Method: 180.1 Preparation: N/A

Lab Sample ID: MB 580-19689/1 Analysis Batch: 580-19689 Instrument ID: No Equipment Assigned Client Matrix: Water Prep Batch: N/A Lab File ID: N/A

Dilution: 1.0 Units: NTU Initial Weight/Volume:

Date Analyzed: 06/15/2007 1452 Final Weight/Volume: mL

Date Analyzed: 06/15/2007 1452 Final Weight/Volume: mL Date Prepared: N/A

Analyte Result Qual RL
Turbidity ND 0.10

Lab Control Spike - Batch: 580-19689 Method: 180.1 Preparation: N/A

Lab Sample ID: LCS 580-19689/2 Analysis Batch: 580-19689 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A
Dilution: 1.0 Units: NTU Initial Weight/Volume:

Date Analyzed: 06/15/2007 1452 Final Weight/Volume: mL Date Prepared: N/A

Analyte Spike Amount Result % Rec. Limit Qual

Turbidity 6.01 6.18 103 80 - 120

Duplicate - Batch: 580-19689 Method: 180.1 Preparation: N/A

Lab Sample ID: 580-6212-C-1 DU Analysis Batch: 580-19689 Instrument ID: No Equipment Assigned

Client Matrix: Water Prep Batch: N/A Lab File ID: N/A

Dilution: 1.0 Units: NTU Initial Weight/Volume: Date Analyzed: 06/15/2007 1452 Final Weight/Volume: mL Date Prepared: N/A

Analyte Sample Result/Qual Result RPD Limit Qual

Turbidity 1.8 1.78 2 20

Chain of **Custody Record**

STL Seattle 5755 8th Street E. Tacoma, WA 98424 Tel. 253-922-2310 Fax 253-922-5047 www.stl-inc.com



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Prigret Sound Frack Line- Contract/Purchase Order/Quote No.	DEWIKE	Matrix				Containers & Preservatives						大きせん	2										ns of Receipt			
Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Soil		Unpres.	H2S04	HNO3	Ę	NaOH	ZnAc/ NaOH	1		j T	'n										
PSTLSEA.	6-15-07 10	:30		४	_		·				-	\bot	X	X	X					_	1	-	-	-		
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☐ Yes ☐ No Cooler Temp: ☐ Non-Ha Turn Around Time Required (business days)	azard 🗍 Flamma	ole L	J SKII	Irritar		□ <i>P</i>						n 🔲 Specify		11 10	Cilen	<u> </u>	U A	rchive	- 101				onths		re retained ioi	nger than 1 month)
☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 D	ays 🔲 15 Days	Othe	er				-						_,_													
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Comments P-WAI YEAVIS & Jen - I DISTRIBUTION: WHITE - Stays with the Samples; CANARY	-ynn 536	2 ya	ha L	<u> </u>	CO	W.										_										STL8274-580 (12/02)

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Western States Environmental

Job Number: 580-6230-1

Login Number: 6230

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	No Ice
Cooler Temperature is acceptable.	NA	
Cooler Temperature is recorded.	NA	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	NA	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	